

NOTICE PUBLICATION/REGULATIONS SUBMISSION

STD. 400 (REV. 10/2019)

For use by Secretary of State only

OAL FILE NUMBERS	NOTICE FILE NUMBER Z-2023-0320-01	REGULATORY ACTION NUMBER	EMERGENCY NUMBER
For use by Office of Administrative Law (OAL) only			
RECEIVED DATE MAR 20 '23		PUBLICATION DATE MAR 31 '23	
Office of Administrative Law			
NOTICE		REGULATIONS	
AGENCY WITH RULEMAKING AUTHORITY Board of Pilot Commissioners for the Bays of San Francisco, San Pablo, and Suisun			AGENCY FILE NUMBER (If any)

A. PUBLICATION OF NOTICE (Complete for publication in Notice Register)

1. SUBJECT OF NOTICE Pilot Fatigue Prevention Regulations		TITLE(S) 7	FIRST SECTION AFFECTED 202	2. REQUESTED PUBLICATION DATE March 31, 2023
3. NOTICE TYPE <input checked="" type="checkbox"/> Notice re Proposed Regulatory Action <input type="checkbox"/> Other		4. AGENCY CONTACT PERSON Allen Garfinkle	TELEPHONE NUMBER 415-397-2253	FAX NUMBER (Optional) 415-397-9463
OAL USE ONLY	ACTION ON PROPOSED NOTICE <input type="checkbox"/> Approved as Submitted <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Disapproved/Withdrawn		NOTICE REGISTER NUMBER	PUBLICATION DATE

B. SUBMISSION OF REGULATIONS (Complete when submitting regulations)

1a. SUBJECT OF REGULATION(S) Pilot Fatigue Prevention Regulations		1b. ALL PREVIOUS RELATED OAL REGULATORY ACTION NUMBER(S)	
2. SPECIFY CALIFORNIA CODE OF REGULATIONS TITLE(S) AND SECTION(S) (including title 26, if toxics related)			
SECTION(S) AFFECTED (List all section number(s) individually. Attach additional sheet if needed.)		ADOPT 218	
		AMEND 202,210,214,215,220	
TITLE(S) 7		REPEAL	
3. TYPE OF FILING			
<input checked="" type="checkbox"/> Regular Rulemaking (Gov. Code §11346)		<input type="checkbox"/> Certificate of Compliance: The agency officer named below certifies that this agency complied with the provisions of Gov. Code §§11346.2-11347.3 either before the emergency regulation was adopted or within the time period required by statute.	
<input type="checkbox"/> Resubmittal of disapproved or withdrawn nonemergency filing (Gov. Code §§11349.3, 11349.4)		<input type="checkbox"/> Emergency Readopt (Gov. Code, §11346.1(h))	
<input type="checkbox"/> Emergency (Gov. Code, §11346.1(b))		<input type="checkbox"/> File & Print	
<input type="checkbox"/> Resubmittal of disapproved or withdrawn emergency filing (Gov. Code, §11346.1)		<input type="checkbox"/> Print Only	
<input type="checkbox"/> Other (Specify) _____		<input type="checkbox"/> Changes Without Regulatory Effect (Cal. Code Regs., title 1, §100)	
4. ALL BEGINNING AND ENDING DATES OF AVAILABILITY OF MODIFIED REGULATIONS AND/OR MATERIAL ADDED TO THE RULEMAKING FILE (Cal. Code Regs. title 1, §44 and Gov. Code §11347.1)			
5. EFFECTIVE DATE OF CHANGES (Gov. Code, §§ 11343.4, 11346.1(d); Cal. Code Regs., title 1, §100)			
<input checked="" type="checkbox"/> Effective January 1, April 1, July 1, or October 1 (Gov. Code §11343.4(a))		<input type="checkbox"/> Effective on filing with Secretary of State	
<input type="checkbox"/> Effective other (Specify) _____		<input type="checkbox"/> \$100 Changes Without Regulatory Effect	
6. CHECK IF THESE REGULATIONS REQUIRE NOTICE TO, OR REVIEW, CONSULTATION, APPROVAL OR CONCURRENCE BY, ANOTHER AGENCY OR ENTITY			
<input type="checkbox"/> Department of Finance (Form STD. 399) (SAM §6660)		<input type="checkbox"/> Fair Political Practices Commission	
<input type="checkbox"/> Other (Specify) _____		<input type="checkbox"/> State Fire Marshal	
7. CONTACT PERSON Allen Garfinkle		TELEPHONE NUMBER 415-397-2253	FAX NUMBER (Optional) 415-397-9463
		E-MAIL ADDRESS (Optional) allen.garfinkle@bopc.ca.gov	

8. I certify that the attached copy of the regulation(s) is a true and correct copy of the regulation(s) identified on this form, that the information specified on this form is true and correct, and that I am the head of the agency taking this action, or a designee of the head of the agency, and am authorized to make this certification.

For use by Office of Administrative Law (OAL) only

SIGNATURE OF AGENCY HEAD OR DESIGNEE 	DATE 3/17/2023
TYPED NAME AND TITLE OF SIGNATORY Allen Garfinkle, Executive Director	

**ECONOMIC AND FISCAL IMPACT STATEMENT
(REGULATIONS AND ORDERS)**

STD. 399 (Rev. 10/2019)

ECONOMIC IMPACT STATEMENT

DEPARTMENT NAME <u>Board of Pilot Commissioners</u>	CONTACT PERSON <u>Allen Garfinkle</u>	EMAIL ADDRESS <u>allen.garfinkle@bopc.ca.gov</u>	TELEPHONE NUMBER <u>415-397-2253</u>
DESCRIPTIVE TITLE FROM NOTICE REGISTER OR FORM 400 <u>Pilot Fatigue Prevention Regulations</u>			NOTICE FILE NUMBER <u>Z</u>

A. ESTIMATED PRIVATE SECTOR COST IMPACTS *Include calculations and assumptions in the rulemaking record.*

1. Check the appropriate box(es) below to indicate whether this regulation:

- | | |
|--|---|
| <input type="checkbox"/> a. Impacts business and/or employees | <input checked="" type="checkbox"/> e. Imposes reporting requirements |
| <input type="checkbox"/> b. Impacts small businesses | <input type="checkbox"/> f. Imposes prescriptive instead of performance |
| <input type="checkbox"/> c. Impacts jobs or occupations | <input checked="" type="checkbox"/> g. Impacts individuals |
| <input type="checkbox"/> d. Impacts California competitiveness | <input type="checkbox"/> h. None of the above (Explain below): |

*If any box in Items 1 a through g is checked, complete this Economic Impact Statement.
If box in Item 1.h is checked, complete the Fiscal Impact Statement as appropriate.*

2. The Board of Pilot Commissioners estimates that the economic impact of this regulation (which includes the fiscal impact) is:
(Agency/Department)

- ☒ Below \$10 million
☐ Between \$10 and \$25 million
☐ Between \$25 and \$50 million
☐ Over \$50 million *[If the economic impact is over \$50 million, agencies are required to submit a Standardized Regulatory Impact Assessment as specified in Government Code Section 11346.3(c)]*

3. Enter the total number of businesses impacted: 0Describe the types of businesses (Include nonprofits): Maritime pilot licenseesEnter the number or percentage of total businesses impacted that are small businesses: 04. Enter the number of businesses that will be created: 0 eliminated: 0Explain: The proposed regulation governs current Board-licensees and trainees and will not create or eliminate any businesses.5. Indicate the geographic extent of impacts: ☐ Statewide☒ Local or regional (List areas): San Francisco Bay region6. Enter the number of jobs created: 0 and eliminated: 0Describe the types of jobs or occupations impacted: maritime pilots licensed by the Board to pilot certain vessels on the waters under the Board's jurisdiction.

7. Will the regulation affect the ability of California businesses to compete with other states by making it more costly to produce goods or services here?

☐ YES☒ NO

If YES, explain briefly:

**ECONOMIC AND FISCAL IMPACT STATEMENT
(REGULATIONS AND ORDERS)**

STD. 399 (Rev. 10/2019)

ECONOMIC IMPACT STATEMENT (CONTINUED)**B. ESTIMATED COSTS** *Include calculations and assumptions in the rulemaking record.*1. What are the total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime? \$ nonea. Initial costs for a small business: \$ N/A Annual ongoing costs: \$ N/A Years: _____b. Initial costs for a typical business: \$ N/A Annual ongoing costs: \$ N/A Years: _____c. Initial costs for an individual: \$ N/A Annual ongoing costs: \$ N/A Years: _____d. Describe other economic costs that may occur: None

2. If multiple industries are impacted, enter the share of total costs for each industry: _____

3. If the regulation imposes reporting requirements, enter the annual costs a typical business may incur to comply with these requirements.
Include the dollar costs to do programming, record keeping, reporting, and other paperwork, whether or not the paperwork must be submitted. \$ none4. Will this regulation directly impact housing costs? ☐ YES ☒ NO

If YES, enter the annual dollar cost per housing unit: \$ _____

Number of units: _____

5. Are there comparable Federal regulations? ☐ YES ☒ NOExplain the need for State regulation given the existence or absence of Federal regulations: Regulations are mandated by Harbors and Navigation Code Section 1196.5 (b).Enter any additional costs to businesses and/or individuals that may be due to State - Federal differences: \$ none**C. ESTIMATED BENEFITS** *Estimation of the dollar value of benefit s is not specifically required by rulemaking law, but encouraged.*1. Briefly summarize the benefits of the regulation, which may include among others, the Fatigue prevention regulations will help assure that health and welfare of California residents, worker safety and the State's environment:
there are adequately rested pilots to protect the safety of persons, property and the environment while providing for the safe movement of maritime commerce in the waters under the Board's jurisdiction.2. Are the benefits the result of: ☒ specific statutory requirements, or ☐ goals developed by the agency based on broad statutory authority?Explain: Harbors and Navigation Code section 1196.5 (b) mandated a study and resultant regulations.3. What are the total statewide benefits from this regulation over its lifetime? \$ N/A4. Briefly describe any expansion of businesses currently doing business within the State of California that would result from this regulation: none**D. ALTERNATIVES TO THE REGULATION** *Include calculations and assumptions in the rulemaking record. Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*1. List alternatives considered and describe them below. If no alternatives were considered, explain why not: Due to the statutory mandate, there were no alternatives considered.

**ECONOMIC AND FISCAL IMPACT STATEMENT
(REGULATIONS AND ORDERS)**

STD. 399 (Rev. 10/2019)

ECONOMIC IMPACT STATEMENT (CONTINUED)

2. Summarize the total statewide costs and benefits from this regulation and each alternative considered:

Regulation: Benefit: \$ _____ Cost: \$ _____

Alternative 1: Benefit: \$ _____ Cost: \$ _____

Alternative 2: Benefit: \$ _____ Cost: \$ _____

3. Briefly discuss any quantification issues that are relevant to a comparison of estimated costs and benefits for this regulation or alternatives: The impact of the proposed regulations is an improved pilot and public safety regime. Any effort to quantify impact would be speculative.

4. Rulemaking law requires agencies to consider performance standards as an alternative, if a regulation mandates the use of specific technologies or equipment, or prescribes specific actions or procedures. Were performance standards considered to lower compliance costs? ☐ YES ☒ NO

Explain: The regulations are the result of a study conducted by San Jose State University Research Foundation, and the study produced pilot fatigue prevention recommendations that the proposed regulations were based.

E. MAJOR REGULATIONS *Include calculations and assumptions in the rulemaking record.*

California Environmental Protection Agency (Cal/EPA) boards, offices and departments are required to submit the following (per Health and Safety Code section 57005). Otherwise, skip to E4.

1. Will the estimated costs of this regulation to California business enterprises exceed \$10 million? ☐ YES ☒ NO

If YES, complete E2. and E3

If NO, skip to E4

2. Briefly describe each alternative, or combination of alternatives, for which a cost-effectiveness analysis was performed:

Alternative 1: _____

Alternative 2: _____

(Attach additional pages for other alternatives)

3. For the regulation, and each alternative just described, enter the estimated total cost and overall cost-effectiveness ratio:

Regulation: Total Cost \$ _____ Cost-effectiveness ratio: \$ _____

Alternative 1: Total Cost \$ _____ Cost-effectiveness ratio: \$ _____

Alternative 2: Total Cost \$ _____ Cost-effectiveness ratio: \$ _____

4. Will the regulation subject to OAL review have an estimated economic impact to business enterprises and individuals located in or doing business in California exceeding \$50 million in any 12-month period between the date the major regulation is estimated to be filed with the Secretary of State through 12 months after the major regulation is estimated to be fully implemented?

☐ YES ☒ NO

If YES, agencies are required to submit a Standardized Regulatory Impact Assessment (SRIA) as specified in Government Code Section 11346.3(c) and to include the SRIA in the Initial Statement of Reasons.

5. Briefly describe the following:

The increase or decrease of investment in the State: N/A

The incentive for innovation in products, materials or processes: N/A

The benefits of the regulations, including, but not limited to, benefits to the health, safety, and welfare of California residents, worker safety, and the state's environment and quality of life, among any other benefits identified by the agency: The regulations will restrict work hours and mandate rest hours of BOPC-licensees who perform a maritime commerce activity, which will promote public safety and safety of the environment.

**ECONOMIC AND FISCAL IMPACT STATEMENT
(REGULATIONS AND ORDERS)**

STD. 399 (Rev. 10/2019)

FISCAL IMPACT STATEMENT**A. FISCAL EFFECT ON LOCAL GOVERNMENT** *Indicate appropriate boxes 1 through 6 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

- ☐ 1. Additional expenditures in the current State Fiscal Year which are reimbursable by the State. (Approximate)
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

\$ _____

- ☐ a. Funding provided in _____
Budget Act of _____ or Chapter _____, Statutes of _____

- ☐ b. Funding will be requested in the Governor's Budget Act of _____
Fiscal Year: _____

- ☐ 2. Additional expenditures in the current State Fiscal Year which are NOT reimbursable by the State. (Approximate)
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

\$ _____

Check reason(s) this regulation is not reimbursable and provide the appropriate information:

- ☐ a. Implements the Federal mandate contained in _____
- ☐ b. Implements the court mandate set forth by the _____ Court.

Case of: _____ vs. _____

- ☐ c. Implements a mandate of the people of this State expressed in their approval of Proposition No. _____
Date of Election: _____

- ☐ d. Issued only in response to a specific request from affected local entity(s).

Local entity(s) affected: _____

- ☐ e. Will be fully financed from the fees, revenue, etc. from: _____

Authorized by Section: _____ of the _____ Code;

- ☐ f. Provides for savings to each affected unit of local government which will, at a minimum, offset any additional costs to each;

- ☐ g. Creates, eliminates, or changes the penalty for a new crime or infraction contained in _____

- ☐ 3. Annual Savings. (approximate)

\$ _____

- ☐ 4. No additional costs or savings. This regulation makes only technical, non-substantive or clarifying changes to current law regulations.

- ☒ 5. No fiscal impact exists. This regulation does not affect any local entity or program.

- ☐ 6. Other. Explain _____

**ECONOMIC AND FISCAL IMPACT STATEMENT
(REGULATIONS AND ORDERS)**

STD. 399 (Rev. 10/2019)

FISCAL IMPACT STATEMENT (CONTINUED)**B. FISCAL EFFECT ON STATE GOVERNMENT** *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*☐ 1. Additional expenditures in the current State Fiscal Year. (Approximate)

\$ _____

It is anticipated that State agencies will:☐ a. Absorb these additional costs within their existing budgets and resources.☐ b. Increase the currently authorized budget level for the _____ Fiscal Year☐ 2. Savings in the current State Fiscal Year. (Approximate)

\$ _____

☒ 3. No fiscal impact exists. This regulation does not affect any State agency or program.☒ 4. Other. Explain The proposed regulations do impose upon the Board of Pilot Commissioners the provision of additional oversight over BOPC-licensees, do not impose any additional budgetary fiscal impacts to the Board.**C. FISCAL EFFECT ON FEDERAL FUNDING OF STATE PROGRAMS** *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*☐ 1. Additional expenditures in the current State Fiscal Year. (Approximate)

\$ _____

☐ 2. Savings in the current State Fiscal Year. (Approximate)

\$ _____

☒ 3. No fiscal impact exists. This regulation does not affect any federally funded State agency or program.☐ 4. Other. Explain _____

FISCAL OFFICER SIGNATURE

DATE



3/17/2023

The signature attests that the agency has completed the STD. 399 according to the instructions in SAM sections 6601-6616, and understands the impacts of the proposed rulemaking. State boards, offices, or departments not under an Agency Secretary must have the form signed by the highest ranking official in the organization.

AGENCY SECRETARY

DATE

*Finance approval and signature is required when SAM sections 6601-6616 require completion of Fiscal Impact Statement in the STD. 399.*

DEPARTMENT OF FINANCE PROGRAM BUDGET MANAGER

DATE



**Board of Pilot Commissioners for the Bays
of San Francisco, San Pablo, and Suisun**

660 Davis Street., San Francisco, CA 94111
Phone: (415) 397-2253 Fax: (415) 397-9463
E-mail: bopc@bopc.ca.gov
www.bopc.ca.gov

**NOTICE OF PROPOSED RULEMAKING
March 31, 2023**

Notice is hereby given that the Board of Pilot Commissioners for the Bays of San Francisco, San Pablo, and Suisun (Board) proposes to adopt the proposed regulations described below after considering all comments, objections, and recommendations regarding the proposed action.

The Board proposes to amend the following sections of the California Code of Regulations, Title 7, Harbors and Navigation, Division 2, State Board of Pilot Commissioners for the Bays of San Francisco, San Pablo and Suisun:

- § 202. Other Definitions.
- § 210. Incident Review Process.
- § 214. Pilot Trainee Training Program.
- § 215. Pilot Training.
- § 220. Duties of Pilot Trainees.

The Board proposes to add a new section to its regulations:

- § 218.1. Fatigue Risk Management.

PUBLIC HEARING

The Board has not scheduled a public hearing on this proposed action. However, the Board will hold a hearing if it receives a written request for a public hearing from any interested person, or his or her authorized representative, not later than 15 days before the close of the written comment period.

WRITTEN COMMENT PERIOD

Any interested person, or his or her authorized representative, may submit written comments relevant to the proposed regulatory action to the Board. Comments may also be submitted by facsimile (FAX) at (415) 397-9463 or by e-mail to bopc@bopc.ca.gov. The written comment period closes at **5:00 p.m. on May 16, 2023**. The Board will consider only comments received at the Board office by that time. Submit comments to:

Allen Garfinkle, Executive Director
Board of Pilot Commissioners for the Bays of
San Francisco, San Pablo, and Suisun
660 Davis Street
San Francisco, California 94111

AUTHORITY AND REFERENCE

Authority: Harbors and Navigation Code (HNC) §§ 1144, 1154, and 1196.5 authorize the Board to adopt these proposed regulations. The proposed regulations implement, interpret, and make specific HNC §§ 1144 and 1196.5.

INFORMATIVE DIGEST/POLICY STATEMENT OVERVIEW

Existing Law and Effect of Proposed Amendments

HNC §1196.5 requires the Board to evaluate factors that contribute to pilot fatigue and to adopt regulations that will prevent pilot fatigue and thereby ensure the safe operation of vessels. As required by §1196.5, the Board contracted for an independent study of the effect of work and rest periods on the ability of pilots to safely perform their duties. The study was performed by the San Jose State University Research Foundation in collaboration with the Ames Fatigue Countermeasures Laboratory of the National Aeronautics and Space Administration. The study made recommendations to the Board on how to prevent pilot fatigue and ensure the safe operation of vessels. These regulations are the Board's response to those recommendations.

The principal feature of the regulations is the requirement that the Port Agent prepare, and submit for Board approval, a fatigue risk management system (FRMS) with prescribed elements. The Port Agent is a member of the San Francisco Bar Pilots Association (San Francisco Bar Pilots), a private business staffed by pilots licensed by the Board. Its pilots provide piloting services to vessels transiting the Golden Gate and adjacent bays and tributaries. The Port Agent is a pilot appointed by the pilots, subject to Board confirmation, to carry out the orders of the Board. Proposed §218.1 of the regulations sets forth the required elements of the FRMS.

Some of these elements are mandatory, imposing specific requirements:

- Maximum work periods for both day and night-time work
- Maximum night-time hours worked during any 72-hour period
- A limit on the number of consecutive days on-call
- Minimum rest periods between work periods
- Reports to the Board concerning these requirements

Other required elements direct the Port Agent to submit for Board approval proposals that deal with various subjects identified by the Board, including:

- A plan for recalling off-call pilots that minimizes disruption of their recovery rest periods
- Minimum advance notice by those ordering pilot services, to increase predictability of schedules for pilots awaiting assignment
- A plan to increase the number of pilots available at any given time
- A plan to educate pilots on the importance of reporting fatigue and removing themselves from the roster when they are significantly fatigued
- Measures to mitigate fatigue caused by long-distance travel to and from mandated training

Other proposed amendments include:

- A requirement that investigation reports concerning navigational incidents include a determination whether fatigue contributed to the incident
- Educational requirements for both pilots and pilot trainees concerning the hazards of fatigue and how to avoid it

The Port Agent must submit the FRMS for review and reapproval by the Board one year after the initial approval, every 24 months thereafter, and whenever the Port Agent makes substantive changes to the FRMS.

Anticipated Benefits of the Proposed Regulations

The objective of the proposed regulations is to prevent pilot fatigue and thereby further the safe operation of vessels on waters within the Board's jurisdiction. The result will be to reduce the potential for personal injury, property damage, and harm to the environment.

Determination of Inconsistency/Incompatibility with Existing State Regulations

The Board has determined that the proposed amendments are not inconsistent or incompatible with existing state regulations or statutes. After conducting a review for any state regulations that would relate to or affect the sections proposed to be added and amended, the Board has concluded that these are the only state regulations that concern prevention of fatigue among pilots and pilot trainees under the jurisdiction of the Board.

DISCLOSURES AND DECLARATIONS REGARDING THE PROPOSED ACTION

The Board has made the following determinations:

- Mandate on local agencies and school districts: None.
- Cost or savings to any state agency: None.
- Cost to any local agency or school district: None.
- Cost or savings in federal funding to the state: None.
- The amendments will not have a significant statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states.
- The Board is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.
- Other non-discretionary cost or savings imposed upon local agencies: none.

- Housing costs: none.
- Effect on small business: The proposed regulations may affect small business.

Results of the Economic Impact Analysis/Assessment

The Board has concluded that the proposed regulations will not facilitate the creation or elimination of jobs within California. The proposed regulations will not affect the creation or elimination of businesses within California or the expansion of businesses currently doing business within California.

Benefits of the Proposed Action: The proposed regulations will benefit the health and welfare of California residents, the state's environment, and worker safety by preventing pilot fatigue from affecting the safe operation of vessels, including oil tankers, on the waters within the Board's jurisdiction, thereby protecting persons, property, and the environment from damage.

CONSIDERATION OF ALTERNATIVES

In accordance with Government Code §11346.5, subdivision (a)(13), the Board must determine that no reasonable alternative it considered or that has otherwise been identified and brought to the attention of the Board would be more effective in carrying out the purpose for which the action is proposed, or would be as effective and less burdensome to affected private persons than the proposed action, or would be more cost-effective to affected private persons, and equally effective in implementing the statutory policy or other provisions of law.

The Board invites interested persons to present statements or arguments with respect to alternatives to the proposed regulations at the scheduled hearing, if one is held, or during the written comment period.

WRITTEN COMMENT PERIOD

Any interested person, or his or her authorized representative, may submit written comments relevant to the proposed regulatory actions to the Board. Written comments will be accepted by the Board until 5:00 p.m. on May 16, 2023. Submit comments to:

Allen Garfinkle, Executive Director
Board of Pilot Commissioners for the Bays of San Francisco,
San Pablo, and Suisun
660 Davis Street,
San Francisco, California 94111
bopc@bopc.ca.gov

CONTACT PERSON

Inquiries concerning the proposed administrative action may be directed to:

Name: Alethea Wong
Email: bopc@bopc.ca.gov
Phone: (415) 397-2253

The backup contact person for these inquiries is:

Name: Allen Garfinkle
Email: bopc@bopc.ca.gov
Phone: (415) 397-2253

Please direct requests for copies of the proposed text (Express Terms) of the regulations, the Initial Statement of Reasons, the modified text of the regulations, if any, or other information upon which the rulemaking is based to Ms. Cristia-Plant at the above address.

AVAILABILITY OF INITIAL STATEMENT OF REASONS, TEXT OF PROPOSED REGULATIONS AND RULEMAKING FILE

The Board has established a rulemaking file for this regulatory action, which contains those items required by law. The file is available for inspection at the above address during normal business hours (9:00 a.m. to 5:00 p.m.). Please contact Alethea Wong at the above email address to arrange a date and time to inspect the files. As of the date this Notice is published in the Notice Register, the rulemaking file consists of this Notice, the Initial Statement of Reasons, and the proposed text of the regulations. Copies of these items are available upon request from the Board Contact Person designated in this Notice.

AVAILABILITY OF CHANGED OR MODIFIED TEXT

After the close of the 45-day public comment period, the Board may adopt the proposed regulations. As a result of public comments, either oral or written, that are received by the Board regarding this proposal, the Board may determine that changes to the proposed regulations are appropriate. If the Board makes modifications that are sufficiently related to the originally proposed text, it will make the modified text (with the changes clearly indicated) available to the public for at least 15 days before the Board adopts the regulations as revised. The Board will provide notification of any such modifications to all persons whose comments were received during the public comment period, all persons whose comments (written or oral) were received at the public hearing (if one is held), and all persons who requested notice of such modifications. Otherwise, please send requests for copies of any modified regulations to the attention of Ms. Wong at the above email address. The Board will accept written comments on the modified regulations for 15 days after the date on which the modified regulations are made available.

AVAILABILITY OF FINAL STATEMENT OF REASONS

The Board is required to prepare a Final Statement of Reasons. Once the Board has prepared a Final Statement of Reasons, a copy will be made available to anyone who requests a copy. Requests for copies should be addressed to the Board Contact Person identified in this Notice.

BOARD INTERNET WEBSITE

The Board maintains an Internet website for the electronic publication and distribution of written material. Copies of the Notice of Proposed Rulemaking, the Initial Statement of reasons, and the text of the regulations in underline and strikeout can be accessed through the Board's website at www.bopc.ca.gov.

BOARD OF PILOT COMMISSIONERS FOR THE BAYS OF
SAN FRANCISCO, SAN PABLO, AND SUISUN

EXPRESS TERMS

Title 7, Harbors and Navigation
Division 2. State Board of Pilot Commissioners for the Bays of
San Francisco, San Pablo and Suisun

The proposed amendments to existing text are shown in underline to indicate additions and strikeout to show deletions. All other text remains unchanged.

Amend Section 202 of Title 7, California Code of Regulations to read as follows:

§ 202. Other Definitions.

- (a) "719K form" means the Application for Medical Certificate, Form CG-719K (04/17), which is hereby incorporated by reference, issued by the U.S. Department of Homeland Security, U.S. Coast Guard.
- (b) "Bays of San Francisco, San Pablo, and Suisun" means all the waters of those bays and of the tributaries, ports and harbors of those bays, and includes the water areas from the south end of San Francisco Bay and from the Ports of Sacramento and Stockton to the Golden Gate Bridge.
- (c) "Board-appointed physician" means a physician who has been appointed by the Board as either an examining physician or a Medical Review Officer.
- (d) "Certificate of completion" means the certificate given by the Board to a pilot trainee notifying the trainee that he or she has successfully completed the training program.
- (e) "Chemical test" means a scientifically recognized test which analyzes an individual's breath, blood, urine, saliva, bodily fluids, or tissues for evidence of dangerous drug or alcohol use.
- (f) "Conflict of interest code" means those provisions in Section 222 which define conflicts of interest for licensees of the Board.
- (g) "Conflict of interest code of the Board" means those provisions in Section 212.5 which define conflicts of interest for designated employees of the Board.
- (h) "Dangerous drug" means a narcotic drug, a controlled substance, marihuana, or a controlled substance analogue (as defined in Section 102 of the federal Comprehensive Drug Abuse and Control Act of 1970 (Title 21, U.S. Code, Section 802)).
- (i) "Examining physician" means a physician who meets the eligibility requirements of Section 217.45(b) and has been appointed by the Board to perform the duties of an examining physician that are set forth in these regulations.
- (j) "Executive Director" means the individual appointed by the Board pursuant to Section 211.
- (k) "Fails a chemical test for dangerous drugs" means that the result of a chemical test conducted in accordance with Title 49, Code of Federal Regulations, Part 40 is verified as "positive" for the presence of dangerous drugs or drug metabolites in an individual's system and reported in accordance with that part.

(l) "Fitness evaluation" means an evaluation by Board-appointed physicians to determine whether pilot trainees and pilots are mentally and physically fit to perform their duties. A fitness evaluation may but does not necessarily include the "medical assessment" described in Section 217.15.

~~(m)~~ (n) "FRMS" means fatigue risk management system.

~~(m)~~~~(n)~~ "Investigator" means a person employed by or under contract with the Board and assigned to investigate a navigational incident involving a vessel piloted by a pilot licensed by the Board, or any other matter for which a pilot's license may be revoked or suspended pursuant to these regulations, including a possible conflict of interest as set forth in Section 222, or to investigate reports of suspected pilot ladder or pilot hoist safety violations.

~~(n)~~~~(o)~~ "Medical assessment" means the comprehensive physical and medical evaluation process described in Section 217.15.

~~(o)~~~~(p)~~ "Medical Review Officer" means a physician who meets the eligibility requirements of Section 217.45(c) and has been appointed by the Board to perform the duties of a Medical Review Officer that are set forth in these regulations.

~~(p)~~~~(q)~~ "Merchant Mariner Medical Manual" means CIM 16721.48 Merchant Mariner Medical Manual (08/19), issued by the U.S. Coast Guard, herein incorporated by reference.

~~(q)~~~~(r)~~ "Monterey Bay" means all the waters of that bay and of the tributaries, ports and harbors of that bay.

~~(r)~~~~(s)~~ "Pilot" means an individual licensed as a pilot by the Board.

~~(s)~~~~(t)~~ "Pilot Evaluation Committee" means the committee appointed by the Board pursuant to Section 209. ~~(t)~~~~(u)~~ "Pilot trainee" or "trainee" means a person who is training as a pilot in the pilot trainee training program established by the Board.

~~(u)~~~~(v)~~ "Pilotage grounds" means all waters extending eastward from the precautionary area surrounding buoy SF to, and including, the Bays of San Francisco, San Pablo and Suisun, and also includes the waters of Monterey Bay, eastward of a straight line drawn between Point Santa Cruz Light and Point Pinos Light. ~~(v)~~~~(w)~~ "Portable Pilot Unit" means a portable, computer-based system that a pilot brings on board a vessel to use as a decision/support tool for navigating in confined waters.

~~(w)~~~~(x)~~ "Port Agent" means the individual identified in Section 218.

~~(x)~~~~(y)~~ "Serious Marine Incident" means an event or events that meet the definition of "Serious Marine Incident" under Title 46, Code of Federal Regulations, Section 4.03-2.

~~(y)~~~~(z)~~ "Training program" or "Program" means the standards and procedures for training pilots and pilot trainees adopted by the Board as contained in Sections 214 and 215.

Note: Authority cited: Section 1154, Harbors and Navigation Code. Reference: Sections 1101(e), 1101(h), 1110, 1113, 1114, 1114.5, 1154, 1156, 1156.5, 1156.6, 1170.3, 1171.5, 1176, 1176.5, 1180, 1180.3, and 1181, and 1196.5, Harbors and Navigation Code; Title 21, U.S. Code, Section 802; Title 46, Code of Federal Regulations, Sections 4.03-2, 97.90-1 and 108.719, subparts 163.002 and 163.003, and Part 16; and Title 49, Code of Federal Regulations, Part 40.

Amend Section 210 of Title 7, California Code of Regulations to read as follows:

§ 210. Incident Review Process.

(a) The President shall appoint an Incident Review Committee with the responsibility of investigating and reporting to the Board all reports of misconduct or navigational incidents involving a vessel piloted by a pilot or inland pilot licensed by the Board, or any other matter for which a pilot's or inland pilot's

license may be revoked or suspended pursuant to these regulations, including a possible conflict of interest as set forth in Section 222, and reports of suspected pilot ladder or pilot hoist safety violations. The Incident Review Committee shall be composed of one public member of the Board and the Executive Director. This subsection does not apply to an incident involving a pilot or inland pilot aboard a vessel of less than 300 gross tons unless a pilot or inland pilot is required by law.

(b) The Incident Review Committee shall investigate the incident, misconduct or other matter and prepare a written report as provided for in subsection (c).

(1) The Incident Review Committee may use investigators, call witnesses and obtain additional information as it considers necessary to complete its investigation. In performing their duties, the members of the Incident Review Committee and the investigators shall act fairly and impartially and shall treat all matters developed or obtained as required by law.

(2) The members of the Incident Review Committee and the investigators shall not discuss any investigation with the Board or any member of the Board who is not on the committee until the results of the investigation are reported to the full Board.

(3) If the Incident Review Committee upon initial investigation finds there is clearly no pilot error, the Committee shall discontinue the investigation and report its findings to the Board.

(c) The written report developed by the Incident Review Committee relating to the incident, misconduct or other matter shall include but need not be limited to:

(1) The name of the vessel, time, date and location of the incident and identification of the pilot or inland pilot.

(2) A description of the weather and sea conditions.

(3) An illustration and description of the incident, misconduct or other matter under investigation.

(4) An estimate of damages, if any.

(5) The names of witnesses providing information relating to the incident, misconduct or other matter under investigation.

(6) The nature and extent of any injuries.

(7) A summary of the investigations of any prior incidents, misconduct or other matters involving the pilot or inland pilot, or, if investigating reports of suspected pilot ladder or pilot hoist safety violations, a summary of the investigations of any prior such violation reports involving the same vessel, vessel owner or operator.

(8) Any relevant correspondence or records from the U.S. Coast Guard relating to the incident, misconduct or other matter under investigation.

(9) A historical record of the actions taken in the investigation and any action taken in response to the investigation.

(10) A summary of the factual background of the incident, misconduct or other matter under investigation.

(11) The following information shall be included in the report but shall not be part of the public record:

(A) The report from the pilot or inland pilot.

(B) The confidential report of the investigator.

(12) An assessment of whether fatigue contributed to the incident.

(d) Following the conclusion of the investigation the Incident Review Committee shall report its findings and recommendations to the Board at the Board's next regular meeting. The written report shall be presented within 90 days of the date of the incident, misconduct or other matter being investigated, unless an extension is granted by the Board.

(e) Upon presentation of the written report of the Incident Review Committee at the Board meeting, and after the Board's full consideration of the evidence, including any additional evidence presented by the pilot or inland pilot and the Incident Review Committee, the Board shall take one or more of the following actions:

(1) Order an accusation for suspension or revocation of the pilot's or inland pilot's license be prepared, filed and served.

(2) Either by Board decision or by entry into a written stipulation with the pilot or inland pilot terminating the matter on such terms and conditions as the Board considers acceptable, requiring compliance with any recommended remedial training or study, supervised practice trips or participation in the training of pilots and pilot trainees. Any such stipulation shall be approved in writing by the Board and by the pilot or inland pilot. A stipulation may provide that it may be referred to following a finding of fault in any subsequent accusation brought against the same pilot or inland pilot for the purpose of considering an appropriate sanction. A written stipulation may not, however, be used for any purpose more than five years after the date of its execution.

(3) Provide counseling for the pilot or inland pilot relating to his or her duties and obligations.

(4) Issue a warning letter of reprimand to the pilot or inland pilot.

(5) Take any other action, as provided in the guidelines in this section.

(6) Remand the matter to the Incident Review Committee for further investigation on such terms as the Board may direct.

(7) Close the matter without further action.

(f) Action shall be taken by the Board under subsection (e) of this regulation by a majority of those members present and voting.

(g) Concerning any corrective action and whether to go outside the guidelines in this section, both the Incident Review Committee, in making its recommendation, and the Board, in making its determination, shall consider the following factors:

(1) The severity of the misconduct.

(2) The danger to the public.

(3) The number and frequency of prior incidents involving pilot error.

(4) The nature and extent of any injuries, property damage or harm to the environment resulting from the incident.

(5) The length of time the pilot or inland pilot has been licensed.

(6) Prior corrective action imposed upon the pilot or inland pilot.

(7) The degree to which the proposed action is likely to prevent recurrence.

(8) The effect of the proposed action upon the pilot's or inland pilot's livelihood.

(9) Corrective action already taken by the pilot or inland pilot relative to the incident under consideration. (10) The degree of negligence of the pilot or inland pilot.

(11) Any other mitigating or aggravating circumstances deemed pertinent by the Incident Review Committee or the Board.

(h) In determining the appropriate action to be taken for certain specific types of misconduct, the following guidelines shall apply:

(1) Under the influence of illegal drugs while on duty: Filing an accusation recommending revocation of license.

(2) Under the influence of alcohol while on duty: First offense -filing an accusation recommending suspension of license (6-12 months) and mandatory participation in a rehabilitation program approved

by the Substance Abuse and Mental Health Services Administration, Second offense -filing an accusation recommending revocation of license.

(3) Refusal to provide specimens required for timely drug and alcohol testing upon being directed by the Port Agent pursuant to the requirements of Section 218: Filing an accusation recommending suspension of license (6-12 months).

(4) Failure to comply with federal, state or local navigation laws or regulations: From a minimum of reprimand to a maximum of filing an accusation recommending suspension of license (1-3 months).

(5) Negligently performing duties related to vessel navigation: From a minimum of reprimand to a maximum of filing an accusation recommending suspension of license (2-6 months).

(6) Neglect of vessel navigation duties: From a minimum of reprimand to a maximum of filing an accusation recommending suspension of license (3-6 months).

(7) Failure to file a written report on a maritime incident in a timely fashion: From a minimum of reprimand to a maximum of filing an accusation recommending suspension of license (2-4 months).

These guidelines are intended to guide the Incident Review Committee in developing its recommendations for corrective action and the Board in determining the appropriate action to be taken and to promote uniformity in assessing the severity of specific types of misconduct, although it is recognized that the circumstances of any individual case may warrant action that falls outside the ranges provided above.

(i) The record of the investigation and final disposition of the incident, misconduct or other matter shall be retained in the Board's records for 10 years, or as long as the pilot is licensed by the Board, whichever is longer, after the completion of the investigation and, except for the items listed in paragraph 11 of subsection (c), shall be a public record. Records of prior incidents more than 10 years old shall not be used in aggravation in determining corrective action unless the pilot or inland pilot raises such incident for mitigation.

(j) The Board may order the reconsideration of all or part of a determination made pursuant to this section on its own motion or on petition of any party. The power to order a reconsideration shall expire 60 days after the Board's written decision is delivered or mailed to the pilot or inland pilot, or on the date set by the Board as the effective date of the determination if that date occurs prior to the expiration of the 60-day period or at the termination of a stay not to exceed 60 days which the Board may grant for the purpose of filing an application for reconsideration. If additional time is needed to evaluate a petition for reconsideration filed prior to the expiration of any of the applicable periods, the Board may grant a stay of that expiration for no more than 10 days, solely for the purpose of considering the petition. If no action is taken on a petition within the time allowed for ordering reconsideration, the petition shall be deemed denied.

(k) No member of the Board shall sit on the Board as a trier of fact for those cases where he or she has served on the Incident Review Committee recommending action to the Board.

(l) The Executive Director shall maintain a suspense file to ensure that all training, practice trips, or other corrective action required to be performed by a pilot or inland pilot, by stipulation or Board decision, are completed as required. The Executive Director shall report to the Board each month on the progress of any ongoing training, practice trips or other corrective action. The Executive Director shall notify the Board of any pilot that fails or refuses to complete the terms of a stipulated resolution or final decision after an accusation.

Note: Authority cited: Sections 1154 and 1180.6(e), Harbors and Navigation Code. Reference: Sections 1154, 1156.5, 1156.6, 1180.3, 1180.6, 1181, and 1184, and 1196.5, Harbors and Navigation Code.

Amend Section 214 of Title 7, California Code of Regulations to read as follows:

§ 214. Pilot Trainee Training Program.

(a) In order to be considered for licensing as a pilot, a pilot trainee must successfully complete the training program conducted and supervised by the Pilot Evaluation Committee for the Board. The Board shall issue a certificate of completion to a pilot trainee only when it determines that the trainee has successfully completed the pilot trainee training program. The Board may rely upon, but shall not be bound by the recommendations of its Pilot Evaluation Committee in determining whether a trainee has successfully completed the training program or whether or when the trainee should be licensed as a pilot. The Board is not required to license an individual as a pilot at any time after issuance of the certificate of completion authorized by this subsection. If a license is issued, it shall be issued to the most qualified trainee who has successfully completed the training program. Order of completion of the program is not the determining factor.

(b) The training program prescribed herein shall include the following topics:

- (1) area geography;
- (2) port and waterway configuration;
- (3) hydrography (channel depths and widths, bottom configuration);
- (4) hydrology and hydraulics;
- (5) tides and currents;
- (6) winds and weather;
- (7) aids to navigation (interaction with and information they convey);
- (8) bottom composition;
- (9) marine facilities;
- (10) other traffic and operations (including commercial fishing vessels, recreational boating, dredging and marine regattas);
- (11) air draft (for bridges and overhead wires);
- (12) communications;
- (13) applicable laws, rules and regulations;
- (14) marine traffic regulation (including Vessel Traffic Service);
- (15) local and seasonal traffic patterns and densities;
- (16) ship maneuvering behavior for all vessel types to be piloted including hydrodynamic interactions with respect to other vessels, facilities and channel bathymetry;
- (17) advantages, limitations and effect on shiphandling of various types of main propulsion and auxiliary maneuvering machinery;
- (18) shiphandling for piloting, anchoring, docking and undocking, maneuvering with and without the aid of tugs and emergency situations;
- (19) tug control (for maneuvering assistance);
- (20) use of ground tackle to aid maneuvering;
- (21) navigation systems (traditional and electronic);
- (22) radar systems (manual and automated); and
- (23) marine and environmental safety requirements;
- (24) The causes and hazards of fatigue, the means of avoiding or alleviating fatigue, the responsibility of pilots and trainees to ensure that they are rested prior to an assignment, the need for a sufficient recovery period after awakening, and the duty of pilots and trainees to refuse an assignment if they are too

fatigued to complete an assignment safely.

(c) The training program for each pilot trainee shall consist of a minimum of one year and a maximum of three years of training. The program may include classroom training and training provided by outside contractors and shall include assignments to ride as an observer on tugs engaged in ship assist work. In addition, the program shall include a minimum of 300 trips while under the direct supervision of a pilot or inland pilot, riding as observer or maneuvering vessels of various sizes and classes on the Bays of San Francisco, San Pablo and Suisun. A minimum of 50 trips shall be with members of the Pilot Evaluation Committee and at least 10 of those trips shall be within the last three months before the committee recommendation that the trainee be issued a certificate of completion. Pilot trainee assignments shall be under the general supervision of the Pilot Evaluation Committee and may be made by the Port Agent, his or her designee, or a member of the Pilot Evaluation Committee.

(d) A stipend, funded by a pilot trainee surcharge to pilotage rates, may be paid to pilot trainees. The amount of the stipend, if any, paid to a pilot trainee shall be determined solely by the Board, provided that trainees at similar phases of the program shall receive an equal stipend, if any stipend is given.

(e) A pilot or inland pilot supervising a pilot trainee shall prepare an evaluation report on the performance of the pilot trainee to the Pilot Evaluation Committee at the times and in the manner prescribed by the Committee.

(f) The Board may dismiss a pilot trainee from the training program at any time during the first year of training without cause. After the first year of training, a pilot trainee may be dismissed from the training program if the Board, after a hearing comparable to that provided to a public employee under Government Code § 11126(a), determines that he or she:

- (1) no longer meets the requirements of Section 213;
- (2) has violated the Code or these regulations;
- (3) has failed to carry out the terms and conditions of the training program;
- (4) has willfully disobeyed a lawful order of the Board, the Pilot Evaluation Committee, the Port Agent, his or designee or the pilot supervising his or her training;
- (5) committed an act of misconduct while on duty as a trainee;
- (6) was intoxicated or under the influence of a substance which appreciably impaired his or her ability to conduct the duties of a pilot trainee while on duty as a trainee;
- (7) failed to meet the conditions of probation within the period prescribed, if placed on probation under subsection (g) of this section; or
- (8) failed a chemical test for dangerous drugs, as defined in Section 202.

(g) A pilot trainee may, on such conditions and for such period of time as the Board may impose, be suspended from the training program or be placed on probation if the Board determines that such action is warranted because of:

- (1) a change in the mental or physical health or good moral character of the pilot trainee;
- (2) a lapse, suspension or revocation of the trainee's U. S. Coast Guard license;
- (3) misconduct while on duty as a trainee; or
- (4) inadequate performance in the training program.

(h) In determining whether a pilot trainee has successfully completed the training program or whether the trainee should be licensed as a pilot, the Board and Pilot Evaluation Committee shall consider whether the trainee has met each of the following:

- (1) All statutory prerequisites for being licensed as a pilot;
- (2) Maintained an average score of at least 4.0 on a 5.0 scale on the evaluations by members of the Pilot Evaluation Committee during each of the last three (3) months immediately preceding the Committee's

recommendations; and

(3) Has adequately demonstrated: (A) local knowledge for the Bays of San Francisco, San Pablo and Suisun, including:

1. limits of all local pilotage areas;
2. names, positions and characteristics of all buoys, beacons, lights, markers, fog signals and other fixed aids to navigation;
3. names, locations and characteristics of all channels, shoals, headlands and points;
4. names, locations, characteristics and vertical clearances of all bridges, cables and other overhead obstructions to navigation;
5. depths of water;
6. set, rate, rise and duration of tides, characteristics of tidal currents, and use of tide tables and real time tide data collection system;
7. courses and distances for each channel;
8. names, locations and characteristics of anchorages;
9. names, locations and waterside characteristics of all berths, terminals and docking facilities; and
10. systems of radio navigational warning broadcasts and the type of information likely to be included.

(B) a working knowledge of the fundamentals of shiphandling, including:

1. shiphandling in piloting waters;
2. anchoring;
3. docking and undocking;
4. appropriate use of tugs;
5. shiphandling in emergency situations; and
6. appropriate vessel speed control.

(C) bridge presence, including proper and timely handling of all shipboard communications using standard terminology;

(D) proper and timely handling of communications with other vessels, Vessel Traffic Service and other entities external to the vessel;

(E) situational awareness, contingency planning and the ability to keep the vessel on track;

(F) appropriate and timely use of bridge equipment, including shipboard navigation and collision avoidance aids, and knowledge of their capabilities and limitations;

(G) appropriate response to vessel traffic;

(H) familiarity with maneuvering characteristics of all types of ships that routinely enter the pilotage grounds, including knowledge of capabilities and limitations of typical propulsion and steering systems on board such vessels;

(I) understanding environmental factors affecting ship performance, such as wind, current, tide, channel configuration, water depth, bottom, bank and ship interaction including squat;

(J) familiarity with bridge team management, including master-pilot relationship;

(K) familiarity with all relevant international, national, state and local laws and regulations applicable to navigational safety, rules of the road, pollution prevention, and contingency planning;

(L) familiarity with lines of communication to local authorities, including the U.S. Coast Guard, U.S. Army Corps of Engineers, State Office of Oil Spill Prevention and Response and the Board.

(M) familiarity with personal techniques for survival at sea and personal safety, including emergency first aid, cardio-pulmonary resuscitation (CPR) and hypothermia remediation; and

(N) consistency of acceptable performance.

Note: Authority cited: Section 1154, Harbors and Navigation Code. Reference: Sections 1101(e),

1114.5, 1171.5, 1175, 1177, ~~and~~ 1178, and 1196.5, Harbors and Navigation Code.

Amend Section 215 of Title 7, California Code of Regulations to read as follows:

§ 215. Pilot Training.

(a) Every pilot must complete the training program established by this section. The Board may revoke or suspend the license of a pilot if he or she fails to successfully complete the training program during the period specified by the Board.

(b) The training program for each pilot shall consist of two parts:

(1) Attend a manned scale model shiphandling course at least five days in length once every five years which provides realistic experience with maneuvering characteristics of major commercial vessel types that routinely transit the waters under the Board's jurisdiction and under harbor and approach conditions that replicate those that are found in the San Francisco Bay Area; and

(2) Attend a combination course at least five days in length completed at least once every five years covering at least the following topics:

(A) Bridge resource management for pilots;

(B) Shiphandling on a computer driven ship's bridge simulator including emergency maneuvering and shiphandling in close quarters;

(C) Emergency medical response;

(D) Advanced electronic navigation systems;

(E) The causes and hazards of fatigue, the means of avoiding or alleviating fatigue, the responsibility of pilots to ensure that they are rested prior to an assignment, the need for a sufficient recovery period after awakening, and effective strategies to prevent fatigue while on duty ~~the duty of pilots to refuse an assignment if they are too fatigued to complete an assignment safely;~~

(F) Radar navigation in low visibility/restricted waters; and

(G) Regulatory review.

(c) The Executive Director shall prepare and maintain a list naming each pilot who is to attend the required training courses during the following twelve months, and the dates of such attendance. The list shall be provided to the Port Agent monthly, who shall notify the pilots on the list.

Note: Authority cited: Sections 1154 and 1171.5, Harbors and Navigation Code. Reference: Sections 1144, 1171.5(a), 1171.5(b), ~~and~~ 1171.5(c), and 1196.5, Harbors and Navigation Code.

Add Section 218.1 to Title 7, California Code of Regulations to read as follows:

§ 218.1. Fatigue Risk Management.

(a) This section implements section 1196.5 of the Code, which requires the Board to evaluate factors that contribute to pilot fatigue and to adopt regulations that will prevent pilot fatigue and thereby ensure the safe operation of vessels.

(b) The Port Agent shall prepare and submit to the Board for review and approval a fatigue risk management system. The FRMS proposed by the Port Agent shall be developed to ensure that the operations of the San Francisco Bar Pilots support effective rest opportunities and fatigue mitigation measures. The FRMS shall include the specific restrictions on work hours and rest periods mandated by this section. The FRMS shall also include the additional elements specified in this section. Subject to

Board approval, the content of these elements is committed in the first instance to the Port Agent. Requiring initial development of the FRMS by the Port Agent is based on the premise that the Port Agent is most familiar with the day-to-day operations of the pilots and is well situated to evaluate what fatigue-management measures will or won't work in the context of what the pilots do and how they do it.

(c) Pilots are limited to a maximum work period of 14 hours. A work period starts at the time a pilot would need to report to San Francisco Bar Pilots headquarters to begin an assignment and ends at the time a pilot, having completed the last of one or more assignments, would arrive back at SFBP headquarters. The Port Agent may include in the FRMS a maximum work period less than 14 hours, stating the rationale for the shorter work period. The Port Agent shall report monthly in writing to the Board instances of work periods in excess of 12 hours.

(d) Pilots are limited to a maximum night work period of 12 hours without a rest opportunity on the offshore station boat between assignments. A night work period is any work period that includes all or any portion of the hours between 0000 and 0600. The Port Agent may include in the FRMS a maximum night work period less than 12 hours, stating the rationale for the shorter night work period. The Port Agent shall report monthly in writing to the Board instances of night work periods in excess of 10 hours without a rest opportunity on the offshore station boat between assignments.

(e) Pilots are limited to a maximum of 18 night-time hours worked in any 72-hour period. A night-time hour is any whole or partial hour worked between 0000 and 0600. If a pilot has reached the 18-hour limit, the Port Agent shall not assign that pilot to work in any night work period that would include a night-time hour worked prior to 0800 of the calendar day next following the calendar day on which the 18-hour limit was reached. The Port Agent may include in the FRMS a limit lower than 18 hours of night-time hours worked in any 72-hour period, stating the rationale for the lower limit. The Port Agent shall report monthly in writing to the Board the number assignments made in which a pilot was assigned to work in a night work period that included a night-time hour worked prior 0800 of the calendar day next following the calendar day on which the 18-hour limit was reached.

(f) Pilots are limited to 15 consecutive days on-call. The Port Agent may include in the FRMS a protocol for providing pilots who are on-call for 14 or 15 consecutive days a rest break at or around the midpoint of the 14- or 15-day period, stating the rationale for the protocol.

(g) The minimum rest period for pilots between work periods is 10 hours. The Port Agent shall report monthly in writing to the Board the number and duration of rest periods of less than 12 hours.

(h) Concerning each of the requirements set forth in subsections (c) through (g), circumstances may arise upon or adjacent to waters under the Board's jurisdiction that pose an immediate threat of harm to persons, property, vessels, or the marine environment. When, in the opinion of the Port Agent, there is reasonable cause to believe that the risk of harm to persons, property, vessels, or the marine environment exceeds the risks associated with (1) extending work periods, (2) making assignments exceeding the limits on night-time hours, (3) extending the number of consecutive days on call, or (4) authorizing exceptions to the minimum rest period, the Port Agent may depart from the limitations set forth in

subsections (c) through (g). For each such departure, the Port Agent shall report monthly in writing to the Board the fact of the departure and the circumstances and reasons therefor.

(i) The Port Agent shall include the following elements in the FRMS:

(1) A plan regarding assignment of off-call pilots that minimizes disruption of their recovery rest periods.

(2) Minimum advance notice to the San Francisco Bar Pilots by those ordering pilot services, thereby increasing the predictability of pilot schedules.

(3) A plan to use various measures to increase the number of pilots available on the board at any given time.

(4) A plan to educate pilots on the importance of reporting fatigue and removing themselves from the roster when they are significantly fatigued.

(5) Measures to mitigate pilot fatigue occasioned by long-distance travel to and from mandated training. The Port Agent shall consider:

(A) Delaying a pilot's return to the board following travel.

(B) A travel mode that would minimize the number of travel segments, minimize total travel time, and enhance rest opportunities.

(6) Any other elements that the Port Agent believes will further the objective of preventing pilot fatigue and thereby ensuring the safe operation of vessels.

(j) The Port Agent shall submit the FRMS to the Board for review and approval not later than 60 days after the effective date of this section. The Port Agent shall submit the FRMS to the Board for review and reapproval one year after the initial approval, every 24 months thereafter, and whenever the Port Agent makes substantive changes to the FRMS.

Note: Authority cited: Sections 1144, 1154, and 1196.5(b), Harbors and Navigation Code. Reference: Sections 1144 and 1196.5, Harbors and Navigation Code.

Amend Section 220 of Title 7, California Code of Regulations to read as follows:

§ 220. Duties of Pilot Trainees.

(a) A pilot trainee shall obey all regulations of the Board.

(b) A pilot trainee absent from his or her duties without permission is liable to suspension and forfeiture of stipend, if any, for the period of absence. A pilot trainee may not be absent from duty for more than 30 consecutive days without obtaining a leave of absence from the Board, unless such absence is caused by the pilot trainee's sickness or personal injury, in which case a leave of absence from the Board shall be obtained if the absence extends for more than 60 days.

(c) A pilot trainee shall not perform any duties of a pilot trainee while intoxicated or under the influence of any substance or combination of substances which so affects the pilot trainee's nervous system, brain or muscles as to impair, to an appreciable degree, the pilot trainee's ability to properly perform his or her duties.

(d) A pilot trainee shall not, through ignorance, willfulness or neglect, cause a vessel to run on shore or to become exposed to liability for damage to persons or property, or otherwise cause injury or damage to persons, property or the marine environment during the performance of his or her duties as a pilot trainee.

- (e) A pilot trainee shall always obey the applicable Rules of the Road for the navigation of vessels and shall, under all circumstances, perform his or her duties in a manner which does not endanger persons, property or the marine environment or cause damage, injury or loss of life.
- (f) A pilot trainee shall obey all lawful instructions and directives given to him or her, or to pilot trainees in general, by the Pilot Evaluation Committee or by any member of such Committee, the Port Agent or his or her designee.
- (g) A pilot trainee, when notified to report in person to the Board, shall report as directed in the notification.
- (h) A pilot trainee shall only train on vessels assigned to him or her by the Port Agent, his or her designee or a member of the Pilot Evaluation Committee.
- (i) A pilot trainee shall keep his or her current address and residence telephone number on file with the Board by submitting the required information to the Administrative Assistant/Secretary in a timely fashion.
- (j) While engaged in any pilot trainee activity, a pilot trainee shall obey all applicable laws and conduct himself or herself so as not to cause injury or damage to persons, property or the marine environment.
- (k) Any pilot trainee who fails a chemical test for dangerous drugs, as defined in Section 202, shall be immediately suspended from further training and, if, after a hearing held pursuant to subsection (f) of Section 214, the Board determines that the trainee failed a chemical test for dangerous drugs, the trainee shall be dismissed from the training program.
- (l) A pilot trainee shall familiarize himself or herself with the work-hour limitations and rest-period requirements applicable to pilots and shall be guided by these limitations and requirements in scheduling training trips on vessels.

Note: Authority cited: Sections 1154 and 1196.5, Harbors and Navigation Code. Reference: Sections 1100, 1101(c), 1101(e), 1101(f), ~~and~~ 1171.5, and 1196.5, Harbors and Navigation Code.

**BOARD OF PILOT COMMISSIONERS FOR THE BAYS OF
SAN FRANCISCO, SAN PABLO, AND SUISUN**

INITIAL STATEMENT OF REASONS

Title 7. Harbors and Navigation
Division 2. State Board of Pilot Commissioners for the Bays of
San Francisco, San Pablo and Suisun

**STATEMENT OF PURPOSE, PROBLEM ADDRESSED, AND NECESSITY
RATIONALE FOR EACH PROPOSED UPDATE, CLARIFICATION, AND CHANGE**

Harbors and Navigation Code (HNC) section 1196.5 requires the Board to evaluate factors that contribute to pilot fatigue and to adopt regulations that will prevent pilot fatigue and thereby ensure the safe operation of vessels. As required by section 1196.5, the Board contracted for an independent study of the effect of work and rest periods on the ability of pilots to safely perform their duties. The study was performed by the San Jose State University Research Foundation in collaboration with the Ames Fatigue Countermeasures Laboratory of the National Aeronautics and Space Administration. The study made recommendations to the Board on how to prevent pilot fatigue and ensure the safe operation of vessels. These regulations are the Board's response to those recommendations.

The principal feature of the regulations is the requirement that the Port Agent prepare, and submit for Board approval, a fatigue risk management system (FRMS) with prescribed elements. The Port Agent is a member of the San Francisco Bar Pilots Association (San Francisco Bar Pilots), a private business staffed by pilots licensed by the Board. Its pilots provide piloting services to vessels transiting the Golden Gate and adjacent bays and tributaries. The Port Agent is a pilot appointed by the pilots, subject to Board confirmation, to carry out the orders of the Board. Proposed section 218.1 of the regulations sets forth the required elements of the FRMS.

Some elements of the FRMS are mandatory, imposing specific requirements concerning work hours and rest periods. Concerning other required elements, the Port Agent is directed to include in the FRMS submitted for Board approval proposals that deal with various subjects identified by the Board.

The Port Agent must submit the FRMS for review and reapproval by the Board one year after the initial approval, every 24 months thereafter, and whenever the Port Agent makes substantive changes to the FRMS.

For each proposed update, clarification, and change in the Board's regulations, the specific purpose, problem addressed, and rationale for the determination that these amendments are reasonably necessary are set forth below.

Section 218.1

This is a new section, and it is the centerpiece of the Board's response to the recommendations made by the independent study.

Under Section 218.1, the FRMS submitted by the Port Agent must include certain provisions of prescribed content concerning hours of work and periods of rest. It must also include additional elements dealing with various subjects identified by the Board. The proposed content of these additional elements is left to the Port Agent to develop in the first instance, subject to Board approval.

Subsection (a) of Section 218.1

This subsection sets forth the Legislature's mandate to the Board, which requires that the Board evaluate factors that contribute to pilot fatigue and adopt regulations that will prevent pilot fatigue.

Subsection (b) of Section 218.1

This subsection sets forth the purpose and content of the FRMS, outlining which elements of the FRMS have prescribed content (those relating to work hours and rest periods) and which elements are, subject to Board approval, committed to the Port Agent for initial development of content.

Subsection (c) of Section 218.1

This subsection prescribes a maximum work period of 14 hours, and allows the Port Agent to propose a shorter maximum work period, accompanied by the rationale for the shorter work period. The Port Agent is required to file with the Board monthly written reports of work periods in excess of 12 hours.

Subsection (d) of Section 218.1

This subsection prescribes a maximum night work period of 12 hours, and allows the Port Agent to propose a shorter maximum night work period, accompanied by the rationale for the shorter night work period. The Port Agent is required to file with the Board monthly written reports of night work periods in excess of 10 hours.

Subsection (e) of Section 218.1

This subsection limits pilots to a maximum of 18 night-time hours worked in any 72-hour period. A pilot who has reached the 18-hour limit may not be assigned work in any night work period that would include a night-time hour worked prior to 0800 of the day next following the day in which the 18-hour limit was reached. The Port Agent is required to file with the Board monthly

written reports of assignments that do not meet this standard. The Port Agent may propose a limit lower than 18 night-time hours worked in a 72-period, accompanied by the rationale for the shorter night-time hour limit.

Subsection (f) of Section 218.1

This subsection limits pilots to 15 consecutive days on-call and permits the Port Agent to provide in the FRMS for a rest period at or around the midpoint of a pilot's 14- to 15-day on-call period, accompanied by the rationale for the rest period.

Subsection (g) of Section 218.1

This subsection prescribes a minimum rest period of 10 hours between work periods and requires the Port Agent to file with the Board monthly written reports of rest periods of less than 12 hours.

Subsection (h) of Section 218.1

This subsection allows the Port Agent to depart from the standards in subsections (c) through (g) when, in the Port Agent's opinion, there is reasonable cause to believe that the risk of harm to persons, property, vessels, or the marine environment exceeds the risks associated with departure from these standards. For any such departure, the Port Agent shall report monthly in writing to the Board concerning the circumstances and the reasons for the departure.

Subsection (i) of Section 218.1

This subsection directs the Port Agent to submit an FRMS to the Board for approval that includes the Port Agent's proposals regarding specified subjects. Subsections (i)(1) through (i)(5) set forth the subjects: a plan for recalling off-call pilots that minimizes disruption of their recovery rest periods; minimum advance notice to the San Francisco Bar Pilots by those ordering pilot services, to increase predictability of schedules for pilots awaiting assignment; a plan to increase the number of pilots available at any given time; a plan to educate pilots on the importance of reporting fatigue and removing themselves from the roster when they are significantly fatigued; and measures to mitigate fatigue caused by long-distance travel to and from mandated training. Subsection (i)(6) invites the Port Agent to include in the FRMS any other elements that the Port Agent believes will further prevention of pilot fatigue and ensure the safe operation of vessels.

Subsection (j) of Section 218.1

This subsection requires the Port Agent to submit an FRMS for Board approval within 60 days from the effective date of the regulations, and then to submit the FRMS for review and reapproval by the Board one year after the initial approval, every 24 months thereafter, and whenever the Port Agent makes substantive changes in the FRMS.

In addition to adding a new section 218.1 to the Board's regulations, other sections are proposed for amendment in response to the recommendations made by the independent study. The various proposed amendments are as follows.

Subsection (m) of Section 202

Adds new subsection (m) to define "FRMS." Subsequent subsections are re-lettered.

Subsection (c)(12) of Section 210

Adds new subsection (c)(12), requiring that reports of the Incident Review Committee concerning navigational incidents include an "assessment of whether fatigue contributed to the incident."

Subsection (b)(24) of Section 214

Adds new subsection (b)(24) to include the hazards of fatigue and how to avoid it among the subjects covered in the pilot trainee training program.

Subsection (b)(2)(E) of Section 215

Amends this subsection concerning continuing education of licensed pilots to conform to the language of Section 214(b)(24) concerning the hazards of fatigue and how to avoid it.

Subsection (I) of Section 220

Adds new subsection (I), requiring trainees, in scheduling training trips on vessels, to be guided by the work-hour limitations and rest-period requirements applicable to pilots.

ECONOMIC IMPACT ASSESSMENT

The Board has determined that the proposed fatigue regulations will not affect the creation or elimination of jobs within California nor will they affect the creation or elimination of businesses within California or the expansion of businesses currently doing business within California.

Benefits of the Proposed Action: The objective of the proposed regulations is to prevent pilot fatigue and thereby further the safe operation of vessels on waters within the Board's jurisdiction. The result will be to reduce the potential for personal injury, property damage, and harm to the environment.

**EVIDENCE SUPPORTING ECONOMIC IMPACT ASSESSMENT
AND FINDING OF NO SIGNIFICANT ADVERSE
ECONOMIC EFFECT ON BUSINESS**

The only business that will be affected by these regulations is the San Francisco Bar Pilots. The preparation of the initial FRMS by the Port Agent, a member of the San Francisco Bar Pilots, and the periodic resubmission for Board approval of the FRMS will likely add an insignificant fiscal impact to the pilots' business operating costs. For some years now, the pilots have been revising their operating policies and then implementing those revised policies to prevent potential fatigue. These changes have been based on a private fatigue study that the pilots themselves had prepared several years ago. Given this significant past investment in fatigue prevention, the FRMS prepared by the Port Agent will be built substantially on this past work. Consequently, the Board does not anticipate that the pilots' additional cost of complying with these regulations will be significant.

The Board does not anticipate that any significant increase in cost to the Board will be occasioned by reviewing the FRMS, nor that there will be any significant increase in the cost of administering the pilot trainee training program or the pilot continuing education program. Accordingly, the Board anticipates as a result of these regulations little or no change in the pilotage surcharges paid by vessels to fund Board operations, the pilot trainee program, or the pilot continuing education program.

STUDIES, REPORTS, OR SIMILAR DOCUMENTS RELIED UPON

In proposing these fitness regulations for pilots and pilot trainees, the Board relied on the independent study of pilot fatigue issues prepared by the San Jose State University Research Foundation in collaboration with the Ames Fatigue Countermeasures Laboratory of the National Aeronautics and Space Administration. That study made recommendations to the Board, and the Board has adopted all but a very few of those recommendations in drafting these proposed regulations. The Board has also adopted in the proposed regulations additional recommendations made by its Fitness Committee. The proposed regulations are the product of sustained input both by industry and the pilots over many meetings of the Fitness Committee. The content of those meetings is recorded in the minutes of the Committee's meetings, which are available on the Board's website, www.bopc.ca.gov.

DESCRIPTION OF REASONABLE ALTERNATIVES

The Board has concluded that there are no reasonable alternatives to the proposed regulations, which were adopted in response to a mandate from the Legislature.